

U.S. ENVIRONMENTAL PROTECTION AGENCY  
 POLLUTION/SITUATION REPORT  
 Wood River Sulfuric Acid Release - Removal Polrep  
 Final Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 Region V

**Subject:** **POLREP #5**  
**Final**  
**Wood River Sulfuric Acid Release**

**Wood River, IL, IL**  
**Latitude: 38.8518045 Longitude: -90.0991173**

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**From:** Adam Vrabec, Federal OSC

**Date:** 9/28/2021

**Reporting Period:** 6/8/21 to 9/27/21

## 1. Introduction

### 1.1 Background

<b>Site Number:</b>	C5TJ	<b>Contract Number:</b>	
<b>D.O. Number:</b>		<b>Action Memo Date:</b>	
<b>Response Authority:</b>	CERCLA	<b>Response Type:</b>	Emergency
<b>Response Lead:</b>	PRP	<b>Incident Category:</b>	Removal Action
<b>NPL Status:</b>	Non NPL	<b>Operable Unit:</b>	
<b>Mobilization Date:</b>	6/3/2021	<b>Start Date:</b>	6/3/2021
<b>Demob Date:</b>	6/8/2021	<b>Completion Date:</b>	9/27/2021
<b>CERCLIS ID:</b>		<b>RCRIS ID:</b>	
<b>ERNS No.:</b>		<b>State Notification:</b>	
<b>FPN#:</b>		<b>Reimbursable Account #:</b>	

#### 1.1.1 Incident Category

CERCLA incident category: Active Production Facility/Transportation - Related

#### 1.1.2 Site Description

Release of spent sulfuric acid from 4 railcars staged on a railroad siding. The release occurred and was reported to the NRC (#1306714 ) on June 2, 2021 and involves four tank cars of spent alkylation sulfuric acid. The release occurred on a set of railroad tracks operated by Norfolk Southern. Local fire departments initially sprayed water on all four railcars to control the release of spent sulfuric acid venting sulfur dioxide.

Based on a review of the safety data sheet for spent alkylation sulfuric acid, the following contaminants of interest were identified as for Site-specific COCs of: sulfuric acid and sulfur dioxide (SO<sub>2</sub>).

#### 1.1.2.1 Location

The site is located approximately 1/2 mile to the North of 170 Rand Avenue, Wood River, IL 62048, in Madison County. GPS locations is 38.8512892197, -90.09852534435.

The release occurred on a set of railroad tracks operated by Norfolk Southern. The area to the North and East consist mainly of residential properties. To the West and South consist of commercial properties.

#### 1.1.2.2 Description of Threat

On June 2, 2021 a release of Spent Sulfuric Acid occurred from the pressure relief device (PRD) resulting in the chemical migrating via air downstream and affecting several commercial businesses to the Northeast. Nearby residential neighborhoods were also affected due migrating vapors (see below).

On June 3, 2021 it was discovered that three additional railcars were experiencing high pressures resulting the PRD's going off. A shelter in place order was issued to approximately 808 homes east of the Site on the morning of June 3, 2021 and 97 homes west of the Site on the mornings of June 4 and again on June 5, 2021. All orders ended after the morning of June 5, 2021.

#### 1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

- IEPA, USEPA, and START responded on scene to oversee response activities and assessing the situation on the morning of 06/04/2021

- Norfolk Southern had their emergency response and environmental representatives and contractors on-site, and Phillips 66 had their emergency response contractors on site

- Norfolk Southern and Phillips 66 contractors were going down range to assess the railcars that were causing the release and providing air monitoring in and around the incident site

- A shower curtain of water was being applied to the leaking tank cars in attempt to knock down/ suppress spent sulfuric acid vapors.

- Initial NRC report described one railcar leaking, but by the morning of 06/03/2021, three additional railcars were also leaking.

## 2. Current Activities

### 2.1 Operations Section

#### 2.1.1 Narrative

Unified Command has been established consisting of Norfolk & Southern, Phillips 66, U.S. EPA, and Illinois Environmental Protection Agency (IEPA) Wood River Fire Department and Madison County EMA.

#### 2.1.2 Response Actions to Date

##### Update actions from 6/8/21 to date:

- Phillip 66 determined an inadvertent lineup in the Alky unit allowed olefins to mix with spent sulfuric acid in the Alky Spent Sulfuric Acid Sphere I-26 on May 22, 2021. Spent Acid Sphere contents were pumped to the Spent Sulfuric Acid Tank CH263. The mixture from the tank was loaded into ten rail cars on May 24th and May 25th. After the rail cars left the Refinery, the contaminated spent acid began having an exothermic reaction changing the material from a liquid to a solid and vapor in eight of the ten rail cars.

- A total of 5 cars were identified instead of the previous 4 that were involved in Wood River. Car numbers are GATX 36174, GATX 231130, TILX 101963, TILX 10198,, TILX 101944

-GATX 36174 is the only rail car with liquid contents remaining inside, all others have solidified

-The railcars have been located in the Phillip 66 facility since 6/8/21. The rail cars have been checked for pressure and physical monitoring

-All five cars have since stopped reacting.

-Phillip 66 has sent a waste disposal plan to IEPA for approval for the remaining contents inside the cars.

#### 2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

Notice of Federal Interest in a threat of Hazardous Release Incident issued to both Phillips 66 and Norfolk & Southern Railway Company.

#### 2.1.4 Progress Metrics

Waste Stream	Medium	Quantity	Manifest #	Treatment	Disposal
Spent sulfuric acid	liquid	est.13,000	N/A	Phillips 66 Treatment Facility or a TBD facility	off-site facility
Non-Hazardous Material	Solidified	est.52,000 gallons			off site facility

#### 2.1.4 Progress Metrics

Regional Metrics		
This is an Integrated River Assessment. The numbers should overlap.	Miles of river systems cleaned and/or restored	NA

	Cubic yards of contaminated sediments removed and/or capped	NA	
	Gallons of oil/water recovered	NA	
	Acres of soil/sediment cleaned up in floodplains and riverbanks	NA	
Stand Alone Assessment	Number of contaminated residential yards cleaned up	NA	
	Number of workers on site	6	
Contaminant(s) of Concern		Spent sulfuric acid, sulfur dioxide	
<b>Oil Response Tracking</b>			
Estimated volume	Initial amount released	NA	
	Final amount collected	NA	
CANAPS Info	FPN Ceiling Amount	NA	
	FPN Number	NA	
	Body of Water affected	NA	
<b>Administrative and Logistical Factors (Place X where applicable)</b>			
Precedent-Setting HQ Consultations (e.g., fracking, asbestos)	x	Community challenges or high involvement	Radiological
More than one PRP		Endangered Species Act / Essential Fish Habitat issues	Explosives
AOC		Historic preservation issues	x Residential impacts
UAO		NPL site	Relocation
DOJ involved		Remote location	Drinking water impacted
Criminal Investigation Division involved		Extreme weather or abnormal field season	Environmental justice
Tribal consultation or coordination or other issues		Congressional involvement	x High media interest
Statutory Exemption for \$2 Million		Statutory Exemption for 1 Year	Active fire present
Hazmat Entry Conducted – Level A, B or C	x	Incident or Unified Command established	x Actual air release (not threatened)
CID confirms Criminal Charges Have Been Filed			
<b>Green Metrics</b>			
<b>Metric</b>		<b>Amount</b>	<b>Units</b>
Diesel Fuel Used		0	gallons
Unleaded Fuel Used		65	gallons

	Alternative/E-85 Fuel Used		0	gallons
	Electricity from electric company		NA	kWh
	Electric Company Name and Account #		NA	
	Electricity from sources other than the electric company		NA	kWh
	Solid waste reused		NA	enter
	Solid waste recycled		NA	enter
	Water Used		NA	gallons

## 2.2 Planning Section

### 2.2.1 Anticipated Activities

No further activities are anticipated

#### 2.2.1.1 Planned Response Activities

None anticipated

#### 2.2.1.2 Next Steps

None anticipated

#### 2.2.2 Issues

None

## 2.3 Logistics Section

None

## 2.4 Finance Section

### 2.4.1 Narrative

The START Task Order Line Item Number (TOLIN) was issued for \$10,000 on 06/03/2021. Incremental financing is expected on 06/08/2021.

### Estimated Costs \*

	Budgeted	Total To Date	Remaining	% Remaining
<b>Extramural Costs</b>				
TAT/START	\$70,000.00	\$58,766.84	\$11,233.16	16.05%
<b>Intramural Costs</b>				
<b>Total Site Costs</b>	\$70,000.00	\$58,766.84	\$11,233.16	16.05%

\* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

## 2.5 Other Command Staff

### 2.5.1 Safety Officer

Rotating Unified Command

### 2.5.2 Liaison Officer

Rotating Unified Command

### 2.5.3 Information Officer

Rotating Unified Command

### **3. Participating Entities**

#### **3.1 Unified Command**

US EPA is participating in Unified Command structure

#### **3.2 Cooperating Agencies**

USEPA, IEPA, Norfolk Southern, Phillips 66, Madison County EMA, Wood River Fire Department.

### **4. Personnel On Site**

USEPA, IEPA, Norfolk Southern, Phillips 66, Madison County EMA, Wood River Fire Department.

### **5. Definition of Terms**

No information available at this time.

### **6. Additional sources of information**

#### **6.1 Internet location of additional information/report**

[https://response.epa.gov/site/sitrep\\_profile.aspx?site\\_id=15228](https://response.epa.gov/site/sitrep_profile.aspx?site_id=15228)

#### **6.2 Reporting Schedule**

Tank cars are secured. Next reporting will occur following the notification that the tank cars are being remediated.

### **7. Situational Reference Materials**

No information available at this time.